REMARKS

Reconsideration of the application in light of the following remarks is respectfully requested.

Status of the Claims

Claims 1-14 are pending.

Rejections Under 35 U.S.C. §103(a)

Claim 1-14 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,862,325 to Reed et al. ("Reed"). The Examiner contends that Reed discloses all of the features of claims 1-14. Applicants respectfully traverse the above rejection. Reed does not teach or suggest all of the features of claims 1-14.

In the Final Office Action dated April 8, 2005, in response to the Applicants' remarks, the Examiner states that Reed teaches that multiple versions of object instances may be maintained in the database so that the user can revert to previous data, and teaches "effective time" as claimed by the Applicants for a specified interval of time. The Examiner specifically cites Col. 30, lines 48-52 and Col. 31, lines 1-8 of Reed which state that:

> Multiple versions of object instances may be maintained in the database so that the user can revert to previous data. The number of previous versions stored is controlled by a global preference attribute (103, Fig. 3) and one or more archiving rules 140.
>
> . . .

[A] selected class instance or instances can be deleted from the database [according to] a user preference for archiving a specified number of deleted instances, or maintaining deleted instance for a specified interval of time before purging them completely from the database.

Applicants submit that the above citation does not teach or suggest the effective time as claimed by the Applicants. While Reed indicates that multiple versions of an object may be stored in the database, nowhere does Reed indicate that these objects are "stored in the database with an indication of the effective time." In effect the Reed system keeps track of how many versions it has stored and archives the oldest when the number it is programmed to keep has been exceeded. Thus, the version being deleted is usually identified by a version number and it can be three weeks old or three years old, i.e., it is not a specified effective time. And, while Reed may allow a user to revert to previous data, Reed nonetheless is not concerned with the effective time of the objects.

Effective time is important in the context of the present invention because, when an object has a change in type or value, the changes may be stored along with an indication of the period of time for which that type or value was in effect. Thus, every change does not result in the requirement to save a complete new object. Therefore, the database stores the information in an efficient manner. Further, all the programmer has to do is specify a function call and the time, and the function will operate the way it would have at that period of time, even if subsequent changes have been made. Effective time allows the temporal problem to be handled in a standard way by the system and does not require idiosyncratic code.

Moreover, the portion of Reed which describes a delete operation in which the object may be archived instead of deleted, is based on how long the item has been in the database, not the effective time of the object. Thus, while objects that are not effective may still be in the database if the number of versions has not been exceeded, they will be deleted if the number has been exceeded. Furthermore, while an object may not be discarded immediately after use, nonetheless it does not automatically exist while undergoing changes and modifications.

Importantly, Reed fails to disclose "methods having an argument with an effective time, execution of said method with a particular time argument utilizing the values of the attributes of the effected data objects in effect for the particular time specified." At most Reed allows the user to recall a past object, which does not result in this functionality, i.e. it does not execute. Nor does

Reed disclose "storing multiple values of a single attribute or method in a database and associating each value or version with an effective time, or context, and using one of the values based on a specified time or context."

For the reasons stated above, Applicants believe that the rejection of claims 1-14 is not well grounded and that claims 1-14 are patentable as previously presented.

In view of the above remarks, applicant believes the pending application is in condition for allowance.

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Respectfully submitted,

By _____

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